

Leukaemia Immunophenotyping (Part 1) Programme
All Participant Report

Sample - 151603

Distribution - 151603

Closing Date - 30 October 2015

Participant ID - 42981

Date Issued - 12 October 2015

Trial Comments

This sample was issued to 287 participants in the LI programme.

Sample Comments

The sample was manufactured by UK NEQAS using a sample of blood from a leukaemia patient which was stabilised and added to a stabilised unit of whole blood.

Results and Performance

Overall Performance Grade (Core Antigens Only)	Performance Status for this Sample	Performance Status Classification Over 6 Sample Period	
		Satisfactory (Grades A-C)	Critical (Grades D-G)
C	Satisfactory	5	1

Please note performance monitoring for this programme is semi-qualitative and is based on the overall performance grade obtained from the consensus immunophenotype on the core antigens. The robust statistics and z-scores provided below are related to technical performance on individual antigens and are not used for performance monitoring. Derivation of z-scores requires normally distributed data and the results for this programme vary between normal and abnormal distribution based on the antigens and on a sample to sample basis. Therefore z-scores for antigens with expressions at the extremes of the results scale (around 0% and 100%) may not truly reflect the performance of the antigen and all z-scores should be viewed as for information purposes only.

Antigen	Your Results (%)	Your Result Antigen Expression (Positive/Negative)	Consensus Antigen Expression (Positive/Negative)	Robust Mean (%)	Robust SD (%)
CD2	42.00	+	-	18.25	20.09
CD3	0.00	-	-	0.00	0.00
CD5	0.00	-	-	0.00	0.00
CD13	45.00	+	+	55.45	39.22
CD19	20.00	+	-	22.51	25.16
CD20	0.00	-	-	0.00	0.00
CD117	97.00	+	+	94.06	4.58
Myeloperox	73.00	+	+	87.33	11.23
CD7			+	72.26	21.43
CD33	97.00	+	+	94.79	4.61
CD34	97.00	+	+	96.13	3.23
HLADR	97.00	+	+	96.64	3.13
CD14	1.50	-	-	0.60	0.67
CD38	97.00	+	+	94.84	4.56
CD10			-	0.14	0.17
CD79a			-	0.00	0.00
TDT			-	0.00	0.00
CD4			-	0.00	0.00
CD45			+	100.00	0.00
CD15			-	1.73	1.60
CD64			-	13.45	13.23
CD11b			-	4.46	4.71
Cyto CD3			-	0.00	0.00
CD56			-	0.10	0.13

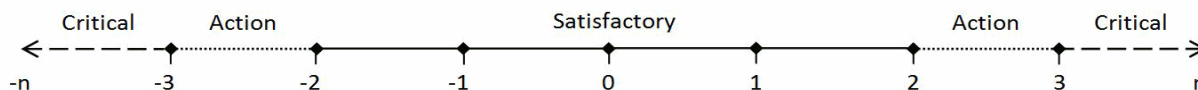
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Antigen	z Score*	Performance Status for this Sample	Performance Status Classification Over 6 Sample Period		
			Satisfactory	Action	Critical
CD2	1.18	Satisfactory	2	1	1
CD3	0.00	Satisfactory	3	1	0
CD5	0.00	Satisfactory	3	1	0
CD13	-0.27	Satisfactory	3	1	0
CD19	-0.10	Satisfactory	3	1	0
CD20	0.00	Satisfactory	3	1	0
CD117	0.64	Satisfactory			
Myeloperox	-1.28	Satisfactory			
CD7		Action			
CD33	0.48	Satisfactory			
CD34	0.27	Satisfactory			
HLADR	0.12	Satisfactory			
CD14	1.34	Satisfactory			
CD38	0.47	Satisfactory			
CD10		Action			
CD79a		Action			
TDT		Action			
CD4		Action			
CD45		Action			
CD15		Action			
CD64		Action			
CD11b		Action			
Cyto CD3		Action			
CD56		Action			

***z Score Limits Definitions**

Please note the scale below is applicable to the tables above and to the z score histograms and Shewhart control charts that follow. It is not applicable to the Cusum control charts.



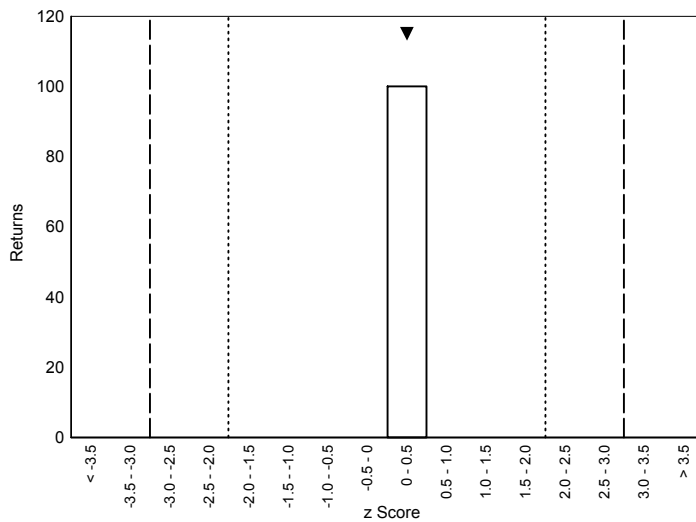
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Histograms of Participant z Scores

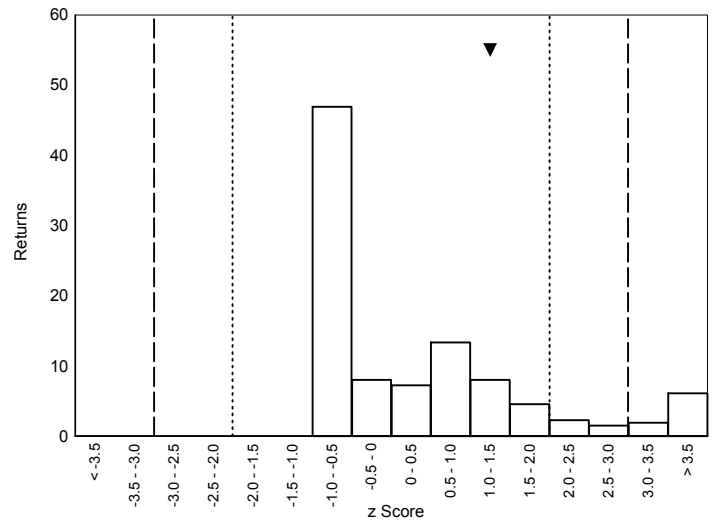
Percentage Values (%) - CD3

Please note ▼ denotes your result



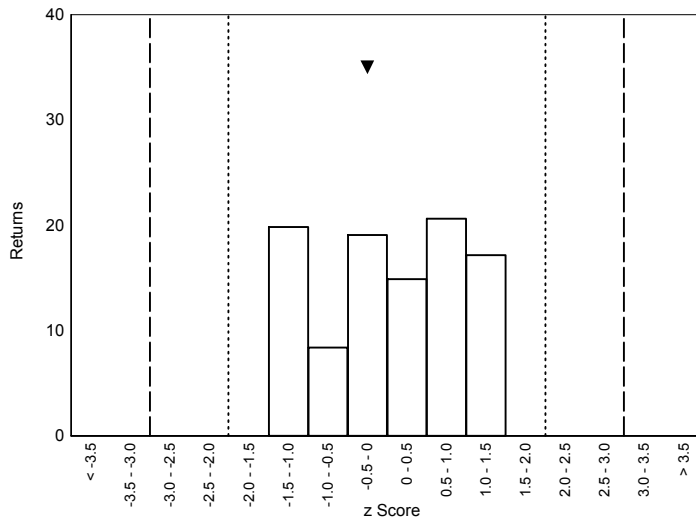
Percentage Values (%) - CD2

Please note ▼ denotes your result



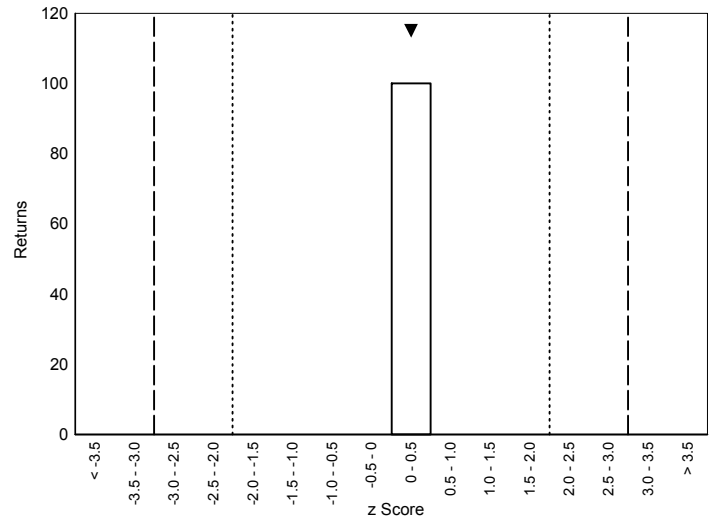
Percentage Values (%) - CD13

Please note ▼ denotes your result



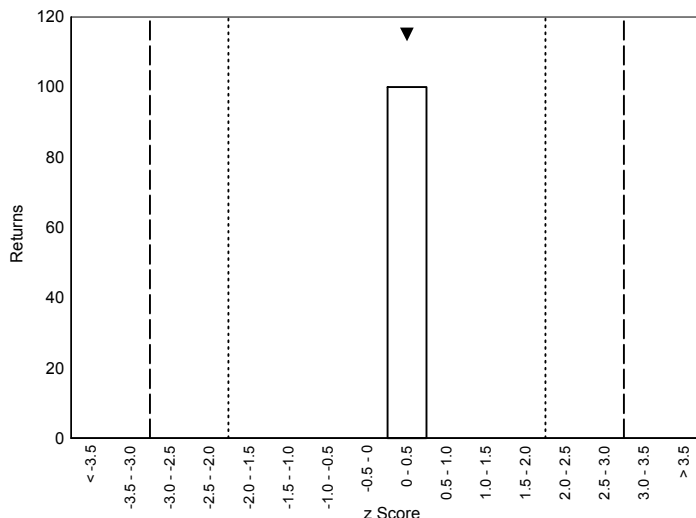
Percentage Values (%) - CD5

Please note ▼ denotes your result



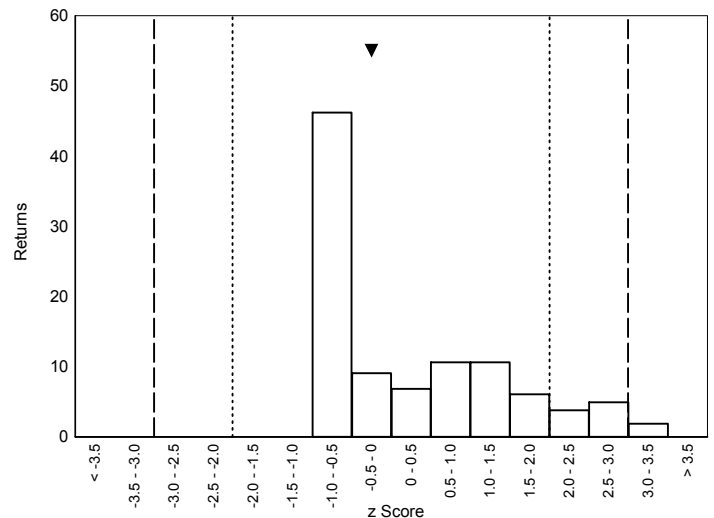
Percentage Values (%) - CD20

Please note ▼ denotes your result



Percentage Values (%) - CD19

Please note ▼ denotes your result



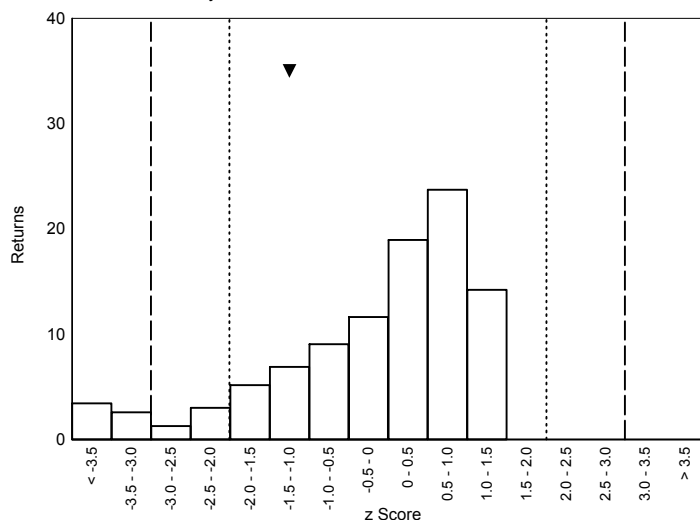
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Histograms of Participant z Scores

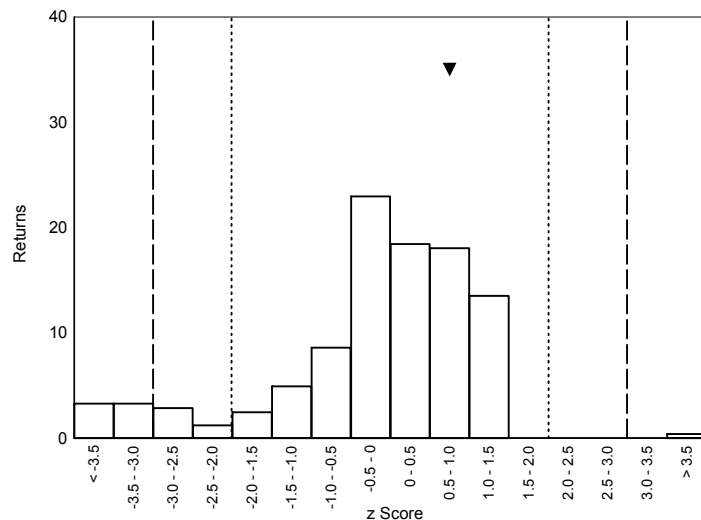
Percentage Values (%) - Myeloperox

Please note ▼ denotes your result



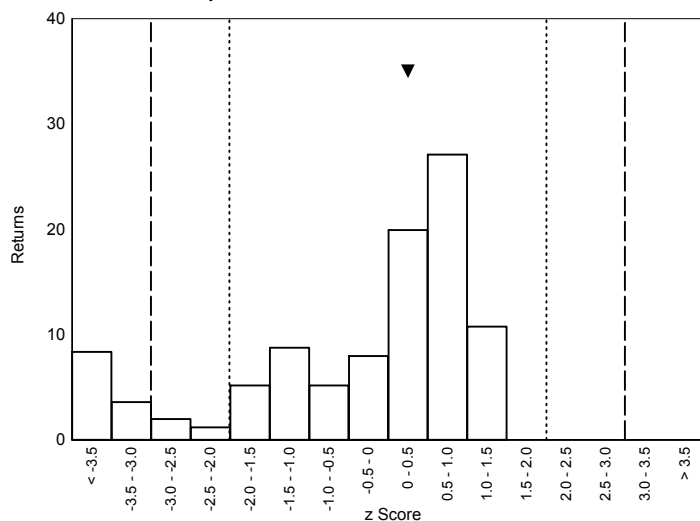
Percentage Values (%) - CD117

Please note ▼ denotes your result



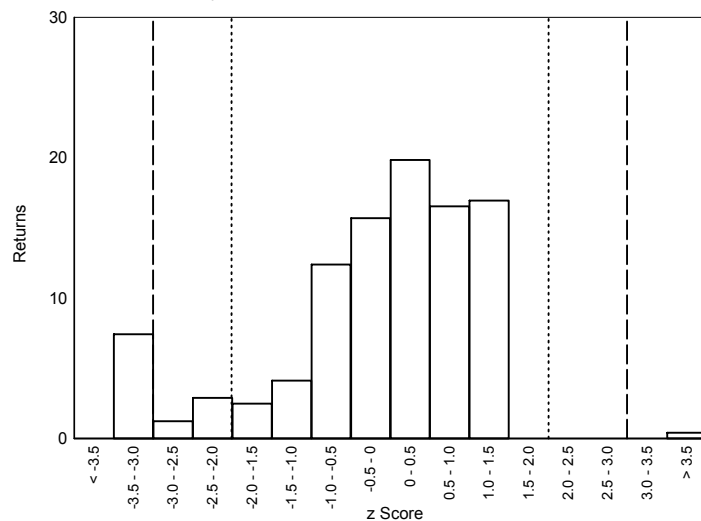
Percentage Values (%) - CD33

Please note ▼ denotes your result



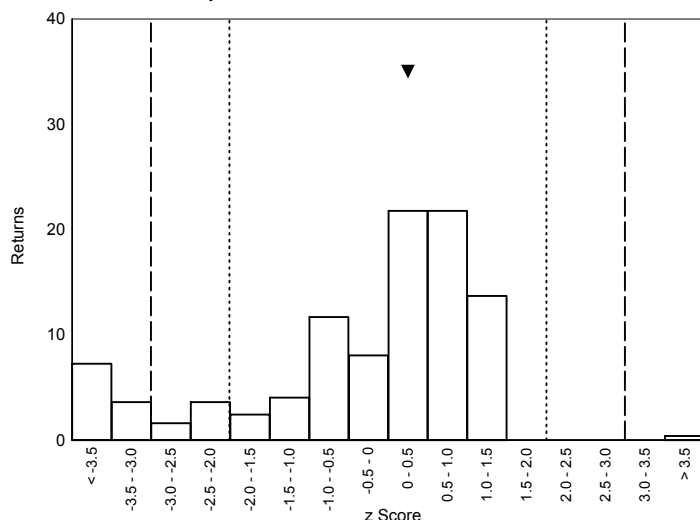
Percentage Values (%) - CD7

Please note ▼ denotes your result



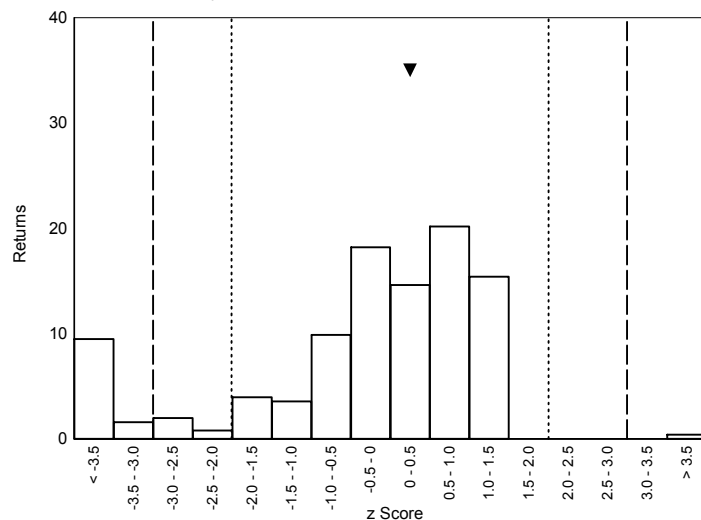
Percentage Values (%) - HLADR

Please note ▼ denotes your result



Percentage Values (%) - CD34

Please note ▼ denotes your result



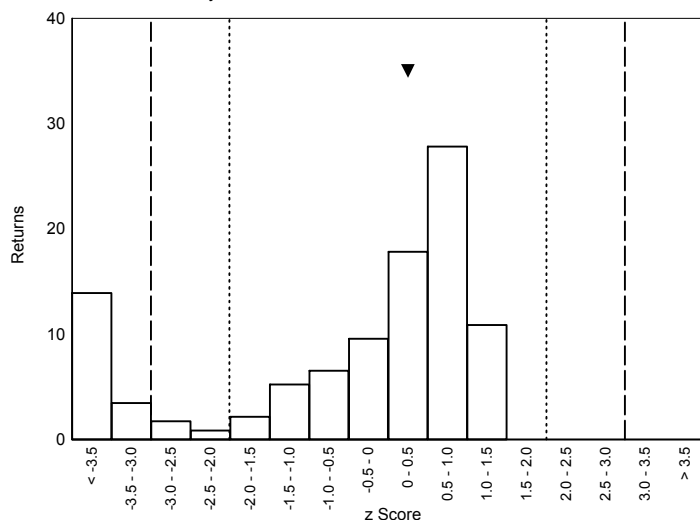
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Histograms of Participant z Scores

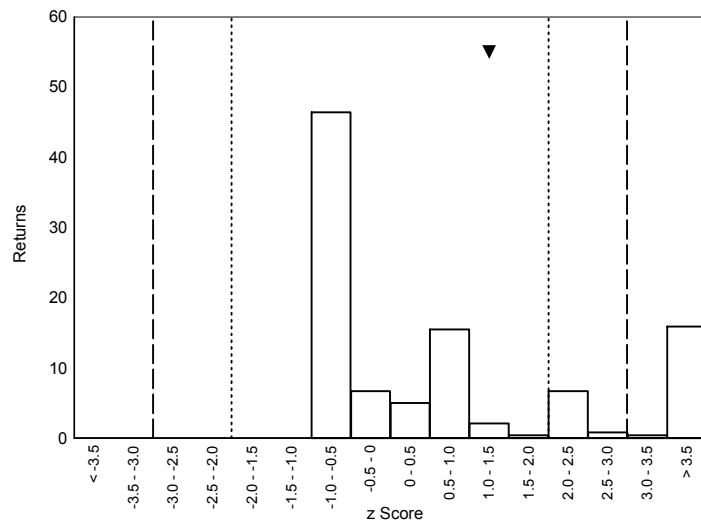
Percentage Values (%) - CD38

Please note ▼ denotes your result



Percentage Values (%) - CD14

Please note ▼ denotes your result



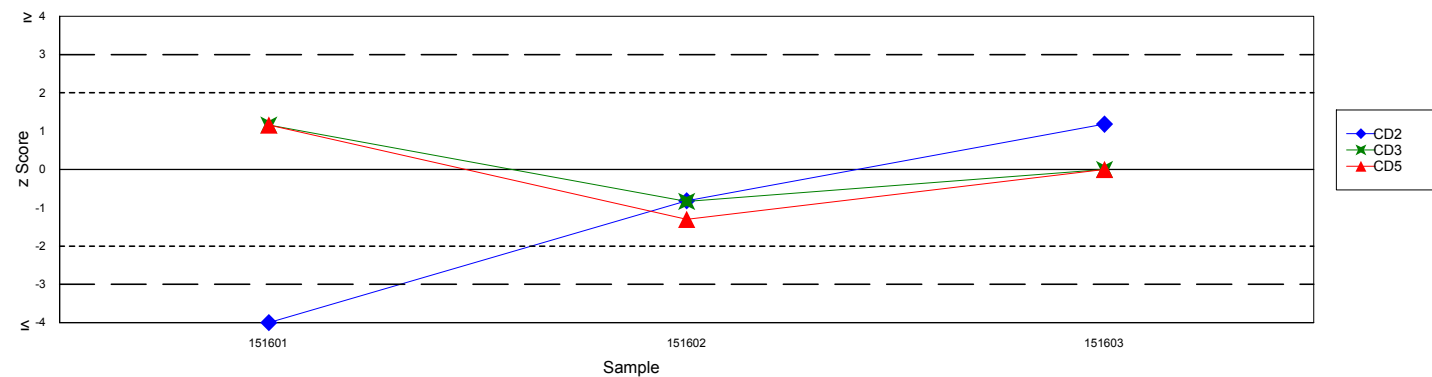
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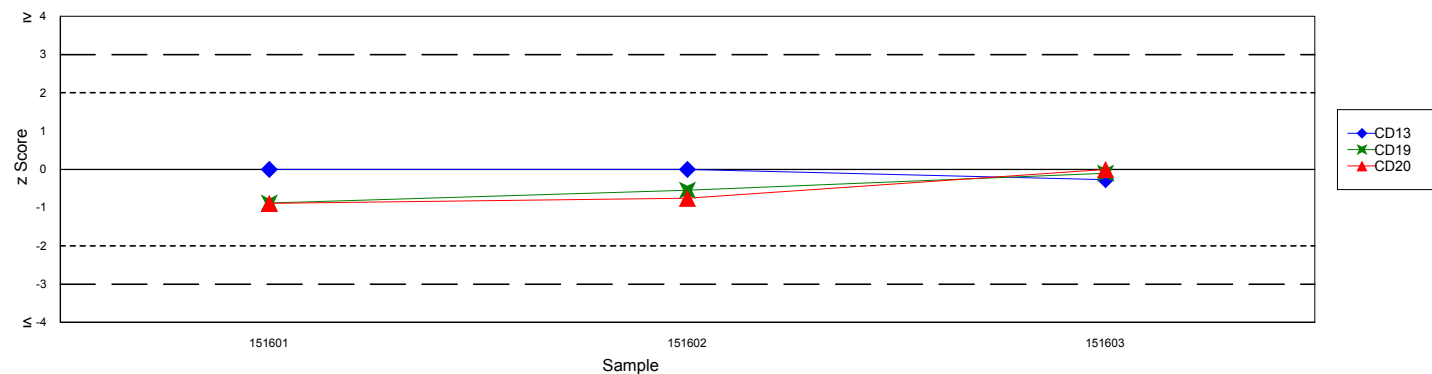
Shewhart Control Charts

(Please note each data point represents a single sample)

Percentage Values (%)



Percentage Values (%)



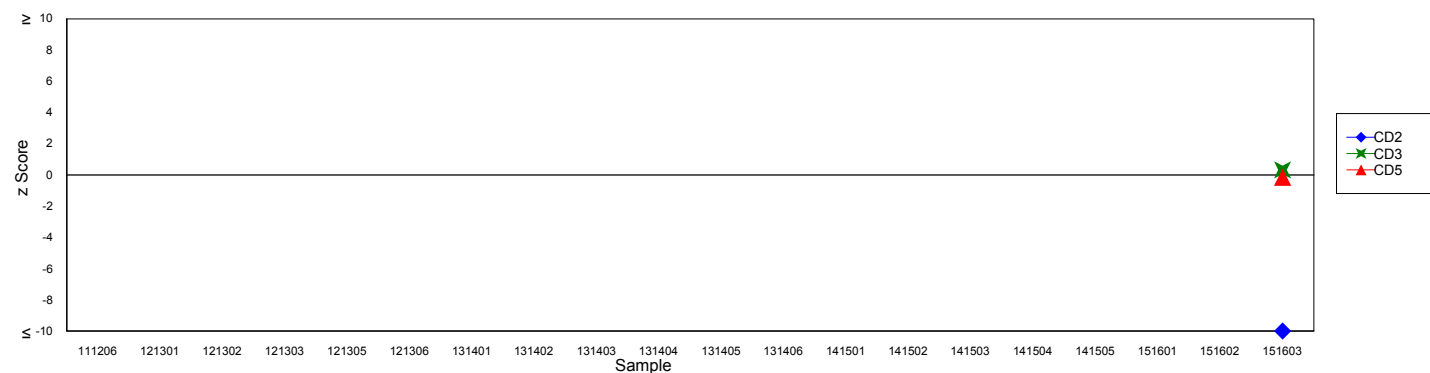
Leukaemia Immunophenotyping (Part 1) Programme

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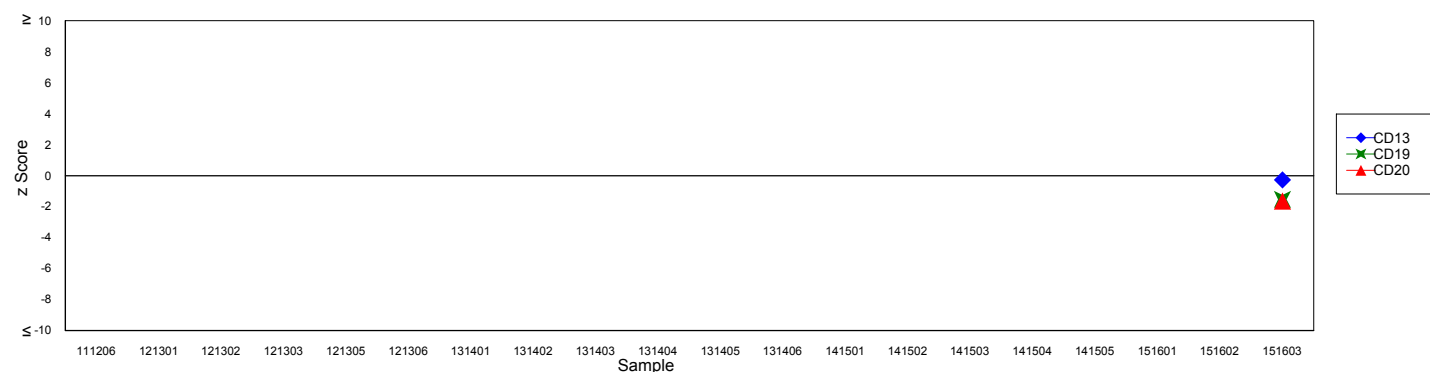
Cusum Control Charts

(Please note each data point represents the sum of the z scores of the current sample and the two previous samples)

Percentage Values (%)



Percentage Values (%)



Leukaemia Immunophenotyping (Part 1) Programme

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Antibody Manufacturer Specific Statistics

(Please note only groups of >20 returns are displayed)

CD2	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	BD Biosciences	143	20.7	23.2
	Beckman Coulter	84	19.5	20.8

CD3	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	BD Biosciences	138	0.0	0.0
	Beckman Coulter	93	0.0	0.0

CD5	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	BD Biosciences	149	0.0	0.0
	Beckman Coulter	84	0.0	0.0

CD13	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	BD Biosciences	154	56.0	37.1
	Beckman Coulter	82	57.0	40.5

CD19	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	BD Biosciences	119	21.8	24.6
	Beckman Coulter	115	25.4	27.3

CD117	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	BD Biosciences	117	93.7	4.9
	Beckman Coulter	96	95.2	3.6

Myeloperox	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	BD Biosciences	88	80.8	16.1
	Beckman Coulter	61	93.8	5.8
	Dako	64	88.4	8.0

Leukaemia Immunophenotyping (Part 1) Programme

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Antibody Manufacturer Specific Statistics

(Please note only groups of >20 returns are displayed)

CD7		Percentage Values (%)	
Method	Returns	Robust Mean	Robust SD
BD Biosciences	121	69.9	25.9
Beckman Coulter	76	75.3	16.7

CD33		Percentage Values (%)	
Method	Returns	Robust Mean	Robust SD
BD Biosciences	143	94.9	4.6
Beckman Coulter	84	94.9	4.6

CD45		Percentage Values (%)	
Method	Returns	Robust Mean	Robust SD
BD Biosciences	21	100.0	0.0

CD34		Percentage Values (%)	
Method	Returns	Robust Mean	Robust SD
BD Biosciences	157	96.4	3.0
Beckman Coulter	77	95.7	3.8

HLADR		Percentage Values (%)	
Method	Returns	Robust Mean	Robust SD
BD Biosciences	136	97.5	2.3
Beckman Coulter	72	94.4	4.7

CD14		Percentage Values (%)	
Method	Returns	Robust Mean	Robust SD
BD Biosciences	137	1.1	1.3
Beckman Coulter	75	0.3	0.3

CD20		Percentage Values (%)	
Method	Returns	Robust Mean	Robust SD
BD Biosciences	141	0.0	0.0
Beckman Coulter	83	0.0	0.0

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Antibody Manufacturer Specific Statistics

(Please note only groups of >20 returns are displayed)

CD38	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	BD Biosciences	135	95.1	4.6
	Beckman Coulter	66	94.9	4.3

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Antibody Fluorochrome Specific Statistics

(Please note only groups of >20 returns are displayed)

CD2	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
APC		32	27.6	20.6
FITC		110	6.5	6.7
PE		51	22.5	21.4
PE-CY7		41	4.9	5.2

CD3	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	APC	36	0.0	0.0
	ECD	21	0.1	0.2
	FITC	44	0.0	0.0
	PE	20	0.2	0.3
	PE-CY7	20	0.0	0.0
	PerCP-CY5.5	20	0.0	0.0

CD5	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	APC	43	0.1	0.2
	FITC	63	0.0	0.0
	PE	39	0.0	0.0
	PE-CY7	32	0.0	0.0
	PerCP-CY5.5	31	0.0	0.0

CD13	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	PE	179	55.4	38.3
	PE-CY7	24	55.0	38.3

CD19	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	APC	35	31.6	31.6
	ECD	23	0.0	0.0
	PE	42	27.3	27.1
	PE-CY7	76	26.7	28.6
	PerCP-CY5.5	22	4.3	4.5

Leukaemia Immunophenotyping (Part 1) Programme

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Antibody Fluorochrome Specific Statistics

(Please note only groups of >20 returns are displayed)

CD117	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	APC	42	94.3	4.9
	PE	98	94.2	3.7
	PE-CY7	62	95.0	4.6

Myeloperox	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	FITC	149	87.5	11.2
	PE	69	86.3	12.5

TDT	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	FITC	23	0.0	0.0

CD7	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	APC	29	76.0	13.4
	FITC	97	63.5	36.6
	PE	70	74.2	14.4

CD33	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	APC	65	93.8	5.2
	PE	97	96.2	3.3
	PE-CY7	28	95.0	4.8

CD34	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	APC	40	97.2	2.1
	FITC	30	93.2	6.8
	PE	53	95.5	3.0
	PE-CY7	28	96.4	3.2
	PerCP-CY5.5	45	96.1	4.0

Leukaemia Immunophenotyping (Part 1) Programme

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Antibody Fluorochrome Specific Statistics

(Please note only groups of >20 returns are displayed)

HLADR	Percentage Values (%)		
Method	Returns	Robust Mean	Robust SD
APC	24	96.5	3.6
FITC	90	96.7	2.9
Pacific Orange	20	98.4	1.4
PC5.5	27	97.0	3.1
PE	20	95.2	4.4

CD14	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	Alexa 750	27	3.0	3.4
	APC	39	0.3	0.3
	FITC	70	0.8	0.9
	PE	36	0.8	0.8

CD15	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	FITC	22	4.4	4.5

CD20	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	APC	27	0.0	0.0
	FITC	70	0.1	0.2
	PC5.5	29	0.0	0.0
	PE	38	0.0	0.0

CD38	Percentage Values (%)			
	Method	Returns	Robust Mean	Robust SD
	Alexa 750	20	95.3	4.6
	APC	38	95.7	3.2
	FITC	51	90.5	8.9
	PE	39	97.7	1.7
	PE-CY7	23	94.7	5.2

Information with respect to compliance with standards BS EN ISO/IEC 17043:2010

4.8.2 a) The proficiency testing provider for this programme is:

UK NEQAS for Leucocyte Immunophenotyping

Pegasus House, 4th Floor Suite

463A Glossop Road

Sheffield, S10 2QD

United Kingdom

Tel: +44 (0) 114 267 3600, Fax: +44 (0) 114 267 3601

e-mail: nicola.rose@ukneqasli.co.uk

4.8.2 b) The coordinators of UK NEQAS LI programmes are Prof David Barnett and Mr Liam Whitby.

4.8.2 c) Person(s) authorizing this report:

Prof David Barnett, Director or Mr Liam Whitby, Operations Manager of UK NEQAS LI

4.8.2 d) No activities in relation to this EQA exercise were subcontracted.

4.8.2 g) The UK NEQAS LI Confidentiality Policy can be found in the Quality Manual which is available by contacting the UK NEQAS LI office. Participant details, their results and their performance data remain confidential unless revealed to the relevant NQAAP when a UK participant is identified as having performance issues.

4.8.2 i) All EQA samples are prepared in accordance with strict Standard Operational Procedures by trained personnel proven to ensure homogeneity and stability. Where appropriate/possible EQA samples are tested prior to issue. Where the sample(s) issued is stabilised blood or platelets, pre and post stability testing will have proved sample suitability prior to issue.

4.8.2 l), n), o), r) & s) Please refer to the UK NEQAS LI website at www.ukneqasli.co.uk for detailed information on each programme including the scoring systems applied to assess performance. Where a scoring system refers to the 'consensus result' this means the result reported by the majority of participants for that trial issue. Advice on the interpretation of statistical analyses and the criteria on which performance is measured is also given. Please note that where different methods/procedures are used by different groups of participants these may be displayed within your report, but the same scoring system is applied to all participants irrespective of method/procedure used.

4.8.2 m) We do not assign values against reference materials or calibrants.

4.8.2 q) Details of the programme designs as authorized by The Steering Committee and Specialist Advisory Group can be found on our website at www.ukneqasli.co.uk. The proposed trial issue schedule for each programme is also available.

4.8.2 t) If you would like to discuss the outcomes of this trial issue, please contact UK NEQAS LI using the contact details provided.